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1.1 DIGITALIZATION

Digitalization is the process of converting information into a digital (bits – 0, 1) format (i.e., readable by computers). This allows any information to be stored, processed, and transmitted easily by using a network of computers.

Digitization is the process of converting data into digital format. Digitalization means the adoption of technology. But these two words are being used interchangeably.

It is a rather dramatic era for the banking industry, as digital disruption has forced many incumbent banks to step out of their comfort zone and up their digital game

Changing customer behavior, increasing expectations, omnichannel experience and the digitization of business and society, in general, have brought along what some people call the digital arms race in banking. Banks around the world are realizing how investments in digital technologies could benefit customer acquisition and satisfaction.

1.1.1 Impact of Digitalisation on the Banking Sector

One of the tendencies in the banking industry is that the largest banks have invested a lot in digital and into the future, while many smaller and regional banks have more difficulties to keep up as they are more dependent on technology vendors. As a result, the market share is clearly moving toward the large players because they have more means.

As another by-product of the digital era of changes, the financial sector is under constant pressure from new Fintech disruptors. Given that the disruptors tend to be startups focused on a particular technology or process, they are more flexible and faster when it comes to adopting innovative solutions and offering more personalized user experience.

1.1.2 Role of digitization in banking:-

- Banks are not just a part of our lives, but have a significant role in our daily lives. For many, day will not end without at least a single financial transaction. Thus banks always try to adopt latest technologies to enhance customer experience.

- Digitization is not an option for banking industry, rather it is inevitable because every industry is being digitized and banking sector is no exception.
- Mobile banking is increasing at a fast pace more than online banking.

1.1.3 Advantages of digitization in banking:-

- Improved customer experience.
- Reduction of costs for banks and customers as well by using ATMs, cashless transactions etc.
- With more digital data available with banks, they can take data-driven dynamic decisions by using digital analytics. This benefits both customers and banks.
- Technology is non-discriminatory. Everyone will be treated same at banks.
- Number of customers will be increased for banks because of the increased convenience of banking.
- Digitalization reduces human error.
- Need of handling large amounts of cash will be reduced.
- Opening and maintaining bank accounts are never been this easier.
- Repetitive tasks will be eliminated by automation.
- Rural and urban gap will be eliminated.
- With the increasing cashless transactions, fake currency threat will be reduced.
- Productivity will be increased.
- The number of customers grows thanks to the convenience of the service that permits users to save time.
- The costs for banks and customers can be reduced by using ATMs, cashless transactions etc.
- On the other hand, now that we have more digital data we can use it to make data-driven dynamic decisions. This is helpful to both banks as well as customers.
- Digitization reduces human error.

1.1.4 Disadvantages of digitization in banking:-

- Digitalization reduces the effort of employees and hence results in loss of jobs.
- Some bank branches may cease to exist with the increasing use of online banking.
- Banks will be more vulnerable to cyber-attacks.
- Privacy may have to be compromised. No one can hide crores of rupees in banks and just act middle class.
- These disadvantages are just temporary. Loss of jobs will be compensated through creation of new jobs such as cyber security, research team for innovation in technology etc.
- It's not that banks are going to have less work, but it's just that the role of retail banking sector changes

1.2 DIGITAL INDIA

Digital India is an activity propelled by the Government of India to ensure the Government's services are made accessible to natives electronically by improved online foundation and by expanding Internet availability or by making the nation digitally enabled in the field of innovation. The activity incorporates plans to interface country territories with fast web systems. Digital India consists of three core components:

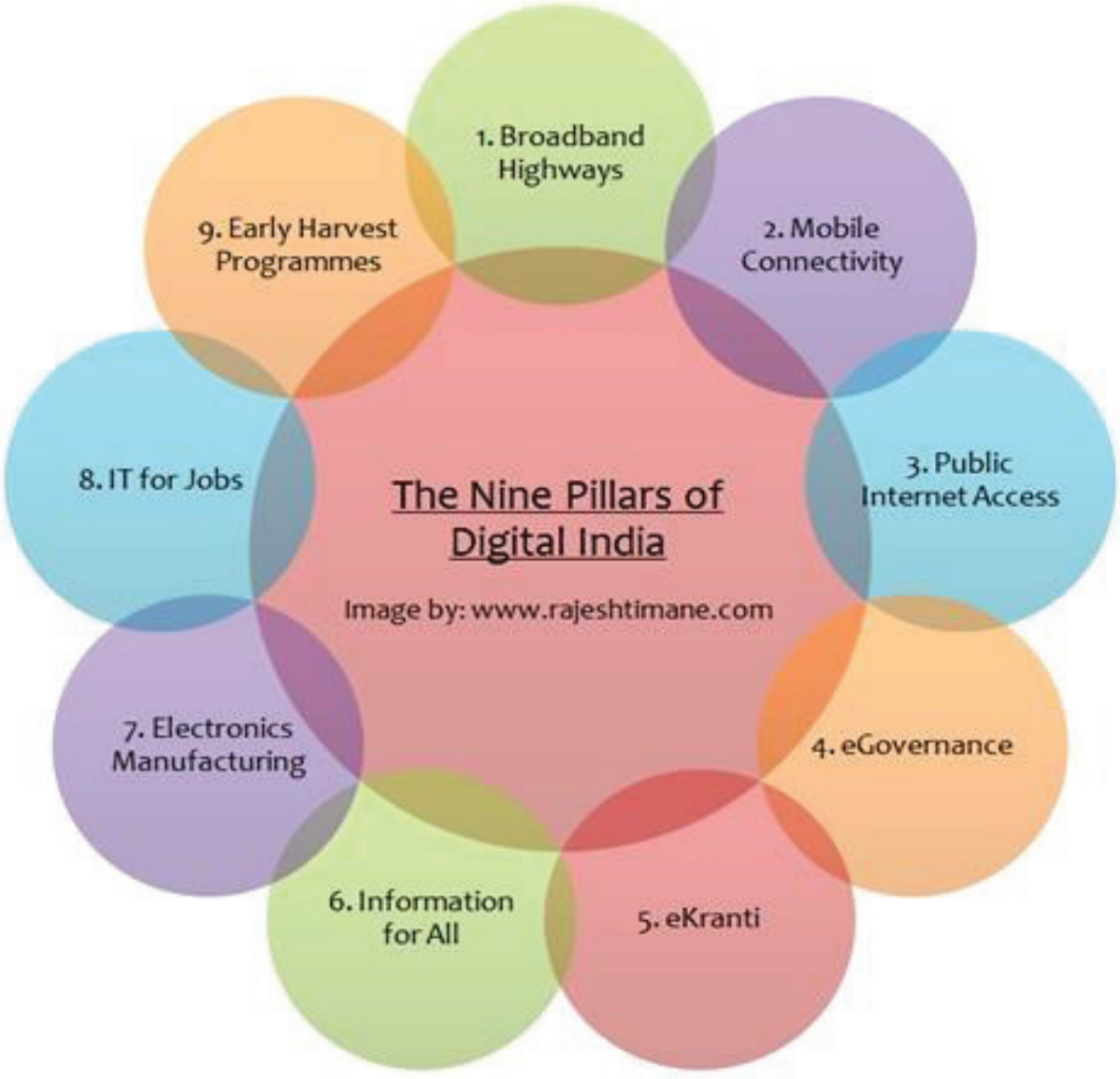
- Development of secure, stable, and digital infrastructure,
- Delivering government services digitally, and
- Universal digital literacy

The Digital India program is a lead program of the Government of India with a dream to change India into a digitally engaged society and learning economy. "Unremarkable, Paperless, Cashless" is one of purported job of Digital India.[1]

[1] http://cashlessindia.gov.in/digital_payment_methods.html

1.2.1 The Nine Pillars of Digital India

Digital India aims at three thrust areas of infrastructure as a utility to every citizen, governance and services on demand and digital empowerment of citizens. It further intends to provide thrust through nine pillars of growth areas.



- ✓ **First Pillar – Broadband Highways**

In the rural areas, the broadband highways would be implemented through Department of Telecommunications (DoT); with a capital expenditure of Rs. 32,000/- crores. The rural broadband highways intend to cover 250,000 Gram Panchayats of which 50,000 would be covered in the first year while 100,000 each would be covered in the next two years.

In the urban areas, focus would be on changing rules towards efficient development of the respective broadband highways. This would be achieved by developing Virtual Network Operators for service delivery along with mandating communication infrastructure in new urban development and buildings. The National Information Infrastructure would be put into practice within a time-frame of two years by integrating SWAN, NKN, and NOFN. Implemented through DeitY, it would have nationwide coverage at a cost of Rs. 15,686 crores.

- ✓ **Second Pillar – Universal Access to Mobile Connectivity**

The ongoing programmes in the area of access to phones would be focused towards increasing network penetration and coverage. Universal access to mobile connectivity would be implemented through Department of Telecommunications (DoT); with a capital expenditure of Rs. 16, 000/- crores and coverage of about 42,300 villages uncovered so far.

- ✓ **Third Pillar – Public Internet Access Programme – National Rural Internet Mission**

Here, CSCs would be made viable through multi-functional end-points for service delivery through Gram-Panchayats. Implemented through DeitY, it would cost of Rs. 4,750 crores to increase the present reach of 130,000 to 250,000 villages.

In long run, the Post Offices would be converted into Multi-Service Centers. Implemented through department of posts (D/o Posts), it intends to cover 150,000 post offices within a span of two years.

- ✓ **Fourth Pillar – eGovernance: Reforming Government through Technology**

Government would take up Business Process Re-engineering (BPR) using IT to improve transactions including form simplification and reduction, online applications and tracking, developing interface between departments, use of online repositories like school certificates and voter identity cards, integration of services and platforms like UIDAI, payment gateway, mobile platform and EDI.

Further, all databases and information would be made through electronic medium going away from the existing manual mode. Focus would also be on workflow automation inside government systems. Public Grievance Redressal would be automated using IT so as to analyse data to identify and resolve persistent problems, largely process improvements. These measures which are critical for transformation would be implemented across government.

- ✓ **Fifth Pillar – eKranti: Electronic Delivery of Services**

The present ongoing programme (NeGP) would be revamped to cover various elements to bring eKranti. This would include fostering technology in the areas of planning, agriculture, education, health, financial inclusion, justice and security. The technology for planning would include GIS based decision making and National GIS Mission Mode Project.

In the domain of agriculture, development of technology for farmers would result into real-time price information, online ordering of inputs (e.g. fertilizers) and online cash, loans, relief-payments along with development of mobile banking. In the domain of education, some of the measures that would be taken include connecting all schools with broadband, free Wi-Fi in about 250,000 schools, digital literacy program and development of pilot massive online open courses.

Bringing-in technology in the domain of health would include online medical consultation, online medical records, online medicine supply, and pan-India exchange for patient information; to be realized within a span of next three years. Financial inclusion technology would include Mobile Banking, Micro-ATM program and revamping CSCs/ Post Offices. Development of technology for justice would include e-Courts, e-Police, e-Jails and e-Prosecution while, technology in the domain of security would include developing National Cyber Security Co-ordination Center along with Mobile Emergency Services.

- ✓ **Sixth Pillar – Information for All**

The pillar of 'information to all' would encompass making information online and hosting websites and documents. This would result into an easy and open access to information by the public in general along with development of open data platforms. As usual, the Government would pro-actively engage through social media and web based platforms to inform citizens. The platform 'MyGov.in' would foster 2-way communication between citizens and government. Also, it would enable sending online messages to citizens on special occasions/programs.

- ✓ **Seventh Pillar – Electronics Manufacturing: Target NET ZERO IMPORTS by 2020**

In India, the existing structure needs strengthening in order to boost electronic manufacturing; the target being 'NET ZERO Imports' in this domain in the days to come. This would be an ambitious goal which would require coordinated action on many fronts like taxation, incentives, economies of scale, and eliminate cost disadvantages.

The areas under focus would include items like FABS, Fab-less design, Set top boxes, VSATs, Mobiles, Consumer & Medical Electronics, Smart Energy meters, Smart cards and micro-ATMs. At present, there are many ongoing programs in the domain of electronic manufacturing which will be fine-tuned with measures such as development of incubators, clusters, and focus on skill development along with measures such as Government procurement.

- ✓ **Eighth Pillar – IT for Jobs**

The objectives of this pillar is to train people in smaller towns and villages for IT sector jobs, setting up of BPO in each of the North-East State in order to foster ICT enabled growth, train service delivery agents to run viable businesses delivering IT services, and to train rural workforce to cater to their own needs and hence create a telecom ready workforce. These initiatives would be implemented mainly through DoT and DeitY.

- ✓ **Ninth Pillar – Early Harvest Programmes**

Some of the immediate measures which can be realised soon are covered in this pillar of 'early harvest programmes'. These would be the measures such as creating IT platform targeted to elected representatives along with all the Government employees covering 1.36 Crore mobiles and 22 Lakh emails through development of a mass messaging application. Other measures would primarily include technological improvements such as Government greetings would now be e-Greetings, implementation of biometric attendance in all government offices, Wi-Fi in all universities, secured emails within government, standardized government email design, public Wi-Fi hotspots, school Books to be eBooks, SMS based weather information, SMS based disaster alerts and a national portal for lost-&-found children.

For the study we will take fifth pillar of Digital India i.e. eKranti: Electronic Delivery of Services in which we will talk about digital banking.

1.3 DIGITAL BANKING

Digital banking is also called internet banking or online banking. When a bank provides its services online and customers can make transactions, submit requests, and handle other banking activities online, it is called digital banking. The first bank in India to offer internet banking was the ICICI bank in 1996. Since then a number of other banks have followed suit and today most of the banks provide online banking facilities.

1.3.1 Benefits of Digital Banking

1. Customer Service:

With internet freely available everywhere, all a customer needs to access his account is a device and internet connectivity. It saves him time and expense as he no longer has to travel to a bank to carry out transactions. He does not have to wait in unending queues only to find that he will have to go to a different counter to get his job done. Online services make it possible for him to sit in the comfort of his home or office, or in fact even in a vehicle while travelling, and carry out transactions without having to wait for anything.

2. 24×7 Availability:

The customer is able to check his bank records anytime he wishes and a number of banking services are available to him round the clock. Transferring money is easier, quicker, and safer.

3. Time Constraint:

A number of services required waiting for considerable periods. Banks had boards put up at their branches specifying the time required for different services. Even simply cashing a cheque took time. But with digital banking it is instant, with no time constraints.

4. Online Bill Payments:

This is a feature that saves customers a lot of time and expense. Customers do not have to carry cash and queue up to pay their utility bills or other bills.

5. Lower Overheads:

Digital banking has drastically reduced the operating costs of banks. This has made it possible for banks to charge lower fees for services and also offer higher interest rates for deposits. Lower operating costs have meant more profits for the banks.

6. Banking Benefits:

With the increased convenience of anytime, anywhere banking, the number of customers has increased for banks. Human error in calculations and recordkeeping is reduced, if not eliminated. With records of every transaction being maintained electronically, it is possible to generate reports and analyze data at any point, and for different purposes.

1.3.2 Importance of Digital Banking in India

The benefits of digital banking stress its importance by themselves. However the socio-economic conditions we face add to the importance of digital banking in India. With a high rate of crime and corruption, digital banking is a safe way to handle financial transactions. The lax and cavalier attitude of public servants makes it a real hassle to sometimes even pay for utility bills and so the online bill payment feature of digital banking is really helpful. Many cities are known for pickpockets who eye bulged wallets, and hence the option of paying by credit or debit card, or through online wallets is a much safer option.

1. Increase in Customers:

The government's encouragement to use electronic wallets has contributed much to people adopting the use of technology in financial transactions. We see a rapid increase in the use of credit/debit cards as well as electronic wallets and the trend will continue.

2. Chatbots:

A number of banks have already employed chatbots in their customer care operations. We will see a steady increase in the number of chatbots employed as well as improvements in their speed of response, quality of interaction and the quality of services rendered.

3. Merge Physical and Digital Process:

Many banks today offer a mixed physical and digital process to their customers. The customers could walk into the bank and then use devices there to carry out their transactions. In the Indian context we will certainly see a steady increase in this kind of service especially in the rural areas.

4. Mobile Technology:

The proliferation of mobile phones and the easy and cheap availability of internet has meant that the banking sector had to provide digital services via mobile phones. A number of banks have

developed apps to help customers handle banking transactions on their mobile phones. This trend will only continue. We can look forward to additional features and services being provided, and the user experience being more streamlined.

5. End to End Digital Marketing:

A number of customers are already using devices to handle their banking tasks. Banks have come to realize that digitization is the only way forward. Hence a number of banks have already started on the path of end to end digitization, in their effort to provide all kinds of services over the internet, resulting in paperless transactions.

1.3.3 Scope of Digital Banking in India

There are a number of factors that affect the scope of digital banking in India. Some of them are enumerated below:

1. Education:

A lack of knowledge about banking in itself is a hurdle for many. Also many parts of India still struggle with a very low literacy rate. The lack of knowledge about computers and the use of the internet is a challenge.

2. Fear:

There are a number of unfounded fears individuals have about the use of the internet. Cases of fraud are often blown out of proportion, and this adds to the fear factor, resulting in a number of ill-informed customers being nervous to use digital banking.

3. Training:

There is much resistance from within the banking industry itself. Employees are not trained in the use of innovative technology. They are unable to utilize different features of digital banking and hence are wary about its implementation.

This having been said, the challenges are steadily being overcome. Gen Y today, even in rural areas, has become computer literate and wants the conveniences and advantages of digital banking.

1.4 DIGITAL PAYMENT SYSTEM

Digital payment is a strategy for disbursement which is finished through digital modes. In digital installments, both sender and recipient practice digital modes to send and get cash. It is likewise called electronic installment. No hard money is engaged with digital disbursements. Very dealings in digital payments are practiced through on the web. It is a brief and suitable way to deal with make disbursement.

If we talk about cash payments in that first we have to first withdraw cash from our bank account. Then we can use this cash to do payment at shops then shopkeeper goes to the bank to deposit the cash amount which he got from us. This process is very time-consuming for us and also for the shopkeeper. But in digital payments, the cash transfers from our account to the shopkeeper's account instantly. This process is automatic and neither we nor the shopkeeper is required to visit the bank

Digital payments save us from long queues of ATMs and banks. Because, if we pay digitally, we don't need to withdraw cash from our bank account. It also requires lots of time and a little money as well.

1.4.1 Different Types of Digital Payments:

1. Banking cards
2. Aadhar Enabled Payment System (AEPS)
3. UPI (Unified Payments Interface)
4. Mobile Wallets
5. Bank pre-paid cards
6. Point of Sale (PoS)
7. Internet Banking
8. Mobile Banking
9. Bharat Interface for Money (BHIM) app

- ✓ **Banking cards:** Cards are among the furthermost broadly utilized disbursement approaches and determined with various highlights and helps, for example, security of installments, comfort, and so on. The central ace of charge/credit or prepaid financial cards is that they can be utilized to make extra sorts of digital installments. For instance, customers can spare card information in digital installment applications or portable wallets to make a cashless payment. A portion the very pinnacle of assumed and eminent card installment frameworks are Visa, and MasterCard, Rupay among others. Banking cards can be utilized for online buys, in digital payment applications, PoS machines online exchanges, and so forth.
- ✓ **AEPS:** Extended as Aadhaar Enabled Payment System, AEPS, can be used for all banking dealings such as balance inquiry, cash withdrawal, cash deposit, payment transactions, Aadhaar to Aadhaar fund transfers, etc. Totally dealings are carried out through a banking communicator grounded on Aadhaar verification. One don't need to actually visit a bank division, provide debit or credit cards, or even make a signature on a document. This amenity can only be availed if your Aadhaar number is registered with the bank where you hold an account. This is additional initiative taken by the NPCI to endorse digital payments in the country.
- ✓ **UPI (Unified Payment Interface):** UPI is a sort of interoperable payment framework through which any client holding any financial balance can send and get cash through an UPI-based application. The administration enables a client to connect more than one ledger on an UPI application on their cell phone to flawlessly start reserve moves and make gather demands on an all day, every day premise and on each of the 365 days a year. The fundamental bit of leeway of UPI is that it empowers clients to move cash without a ledger or IFSC code. All you need is a Virtual Payment Address (VPI). There are numerous UPI applications in the market and it is accessible on both Android and iOS stages. To utilize the administration one ought to have a legitimate financial balance and an enrolled portable number, which is connected to a similar ledger. There are no exchange charges for utilizing UPI. Through this, a client can send and get cash and make balance inquiries.
- ✓ **Mobile Wallets:** A mobile wallet is a kind of virtual wallet administration that can be utilized by downloading an application. The advanced or portable wallet stores ledger or

charge/Visa data or financial balance data in an encoded organization to permit secure installments. One can likewise add cash to a portable wallet and utilize the equivalent to make installments and buy merchandise and ventures. This wiped out the need to utilize credit/platinum cards or recall the CVV or 4-digit stick. Numerous banks in the nation has propelled e-wallet administrations and separated from banks, there are additionally numerous private players. A portion of the versatile wallet applications in the market are Paytm, Mobikwik, Freecharge, and so forth. The different administrations offered by versatile wallets incorporate sending, and getting cash, making installments to shippers, online buys, and so on. Some portable wallets may charge a specific exchange expense for the administrations advertised.

- ✓ **Bank pre-paid cards:** A prepaid card is a type of payment instrument on to which you load cash to make buys. The kind of card may not be connected to the financial balance of the client. In any case, a charge card issued by the bank is connected with the financial balance of the client.
- ✓ **PoS terminals:** Traditionally, PoS terminals referred to those that were introduced at all stores where buys were made by clients utilizing credit/platinum cards. It is typically a handheld gadget that peruses banking cards. Notwithstanding, with digitization the extent of PoS is extending and this administration is additionally accessible on portable stages and through web programs. There are various sorts of PoS terminals, for example, Physical PoS, Mobile PoS and Virtual PoS. Physical PoS terminals are the ones that are kept at shops and stores. Then again, versatile PoS terminals work through a tablet or cell phone. This is profitable for little time entrepreneurs as they don't need to put resources into costly electronic registers. Virtual PoS frameworks use online applications to process installments.

- ✓ **Internet Banking:** Internet banking refers to the process of carrying out banking transactions online. These may incorporate numerous administrations, for example, moving assets, opening another fixed or repeating store, shutting a record, and so forth. Web banking is additionally alluded to as e-banking or virtual banking. Web banking is generally used to make online store moves by means of NEFT, RTGS or IMPS. Banks offer clients a wide range of banking administrations through their site and a client can sign into his/her record by utilizing a username and secret key. In contrast to visiting a

physical bank, there are to time limitations for web banking administrations and they can be profited whenever and on each of the 365 days in a year. There is a wide extension for web banking services.

- ✓ **Mobile Banking:** Mobile banking is referred to the process of carrying out financial transactions/banking transactions through a smartphone. The scope of mobile banking is only expanding with the introduction of many mobile wallets, digital payment apps and other services like the UPI. Many banks have their own apps and customers can download the same to carry out banking transactions at the click of a button. Mobile banking is a wide term used for the extensive range or umbrella of services that can be availed under this.

- ✓ **Bharat Interface for Money (BHIM) app**: Bharat Interface for Money (BHIM) application: The BHIM application enables clients to make installments utilizing the UPI application. This likewise works in a joint effort with UPI and exchanges can be completed utilizing a VPA. One can connect his/her financial balance with the BHIM interface effectively. It is likewise conceivable to interface different ledgers. The BHIM application can be utilized by any individual who has a portable number, check card and a substantial financial balance. Cash can be sent to various ledgers, virtual delivers or to an Aadhaar number. There are additionally numerous banks that have teamed up with the NPCI and BHIM to enable clients to utilize this interface.

1.4.2 Benefits of Digital Payments

- **Faster, easier, more convenient:** Perhaps, one of the biggest advantages of cashless payments is that it speeds up the payment process and there is no need to fill in lengthy information. There is no need to stand in a line to withdraw money from an ATM or carry cards in the wallet. Also, with the move to digital, banking services will be available to customers on a 24/7 basis and on all days of a year, including bank holidays. Many services like digital wallets, UPI, etc, work on this basis.
- **Economical and less transaction fee:** There are many payment apps and mobile wallets that do not charge any kind of service fee or processing fee for the service provided. The UPI interface is one such example, where services can be utilized by the customer free of cost. Various digital payments systems are bringing down costs.

- **Waivers, discounts and cashbacks:** There are many rewards and discounts offered to customers using digital payment apps and mobile wallets. There are attractive cash back offers given by many digital payment banks. This comes as boon to customers and also acts a motivational factor to go cashless.
- **Digital record of transactions:** One of the other benefits of going digital is that all transaction records can be maintained. Customers can track each and every transaction that is made, no matter how small the transaction amount this.
- **One stop solution for paying bills:** Many digital wallets and payment apps have become a convenient platform for paying utility bills. Be it mobile phone bills, internet or electricity bills, all such utility bills can be paid through a single app without any hassle.
- **Helps keep black money under control:** Digital transactions will help the government keep a track of things and it will help eliminate the circulation of black money and counterfeit notes in the long run. Apart from this, this may also give a boost to the economy as the cost of minting currency also goes down.

Promotion of digital payments has been accorded highest priority by the Government and is one of the key highlights of the Union Budget 2017-2018

Accordingly, a pan-India target of total 2,500 crore digital transactions through five payment modes namely UPl, USSD, Aadhar Pay, IMPS and Debit cards. A target of 91 crore digital transactions has been allocated to Healthcare Sector for the financial year 2018-19.[2]

1.4.3 Challenges in Digital Payments are:

- **Security and privacy concerns**

  A growing concern for various people is the security of cashless solutions. In today's environment, with both organized criminal gangs and nation-states always coming up with new ways of attacking digital systems, non-cash solutions may well be more exposed. At the same time, there are also privacy concerns that come with every transaction having a digital footprint, whereas cash is more anonymous.

[2] https://mohfw.gov.in/digital-payment

- **Resilience**

  Another issue if a country does not offer a cash payment option is what to do should the supporting systems be unavailable. While the latest infrastructure solutions will offer very high levels of availability, 100 percent uptime is never a guarantee. If this connectivity should fail, having cash as a reliable backup option will be essential, especially if natural disasters such as flooding, earthquakes or hurricanes knock out critical infrastructure

- **Tracking spending**

  Cash also has a key advantage over alternatives when it comes to issues such as budgeting and monitoring spending. When notes physically leave your hand as part of a transaction, this tends to register much more than when paying by card or other means. In fact, when using digital payments, it can be very easy to lose track of how much you are spending and could leave people approaching the end of the month with a much lower balance than they think, simply because they cannot see in front of them how much money they have available.

- **Unwilling consumers**

  Regardless of how effective public education campaigns may be, there will always be a certain number of consumers who are resistant to the change, often with very good reasons. These are often thought of as more elderly citizens who are not as tech-savvy as their younger peers. But while there may be some truth in this, people of all ages still prefer to deal in cash for a variety of reasons, and their wishes must be respected.

- **Loss of control**

  Many of the concerns about moving away from cash essentially come down to consumers feeling as though they are in less control of their finances. Whether it's being able to physically feel notes and coins in their wallet or purse, or worries about putting their faith in the systems of private companies or governments, cash gives people a sense of comfort and security that can't be matched by other alternatives. This means that, while non-cash payments may become the norm for many transactions in the coming years, there must always be a place for notes and coins.

1.4.4 Future of Digital Payments in India[3]

Besides private actors like Paytm, Mobikwik, and FreeCharge, the Indian government has been aggressively pushing numerous digital payment applications, including the Aadhaar Payment app, the UPI app, and the Bharat Interface for Money (BHIM) app developed by the National Payments Corporation of India (NPCI).

The novel apps target to ease the transfer of funds across India, especially in rural communities, and more importantly, seek to facilitate a behavioral change towards the greater adoption of cashless services. As such, the digital payments industry is fast becoming a highly attractive destination for foreign investors keen to establish a foothold in India.

Multiple factors and parallel institutional and behavioral trends seem to be powering India's transition towards a less-cash economy. The rapid penetration of smartphones and spread of internet connectivity on mobiles, digital payment services provided by non-banking institutions and the rise of the Fintech sector, consumer expectations of one-touch payments, and progress in regulatory governance and tax breaks, have altogether shaped India's payments landscape in favor of digital solutions.

India is all set to witness a massive surge in the adoption of digital payments in the coming years[4]

The following trends are set to transform digital payment landscape in the coming years:

- Technology will make digital payments easier
- Merchant acceptance network to progress 10x by 2020
- Payments will drive consumption, not the other way around.
- Merging will drive ubiquity
- Modified UPI will be a game changer
- Digital identity to accelerate customer acquisition
- Cash to Non-cash ratio will reverse over 10 years

[3] https://www.india-briefing.com/news/growth-of-digital-payment-systems-in-india-14797.html/
[4] https://dsim.in/blog/2017/04/14/case-study-digital-payments-landscape-in-india-2017-trends-future/

1.4.5 NITI Aayog leads initiative to convert 100% Government – Citizen Transactions to the digital platform[5]

In a transformative endeavor to get rid of black money and corruption from public life, the Government of India has founded a Committee of Officers to empower 100 per cent conversion of Government – Citizen Transactions to the digital platform.

The Committee, under the guidance of NITI Aayog CEO Mr. Amitabh Kant, will recognize and operationalize in the earliest possible time frame user-friendly digital payment options in all sectors of the economy. This is essential part of the Governments strategy to transform India into a cashless economy.

The objective of the committee is to pinpoint numerous digital payment systems which are suitable to different sectors of the economy and coordinate efforts to make them accessible and convenient. The committee will also identify and access infrastructural and blockages affecting the access and utility of digital payment options.

To attain prompt movement into the cashless, digital payments economy across all States and sectors, it will engage regularly with Central Ministries, regulators, State governments, district administration, local bodies, and trade and industry associations etc. to promote rapid adoption of digital payment systems. The attempt is to establish and monitor an implementation framework with strict timelines to ensure that nearly 80 per cent of the transaction in India moves to the digital-only platform. The committee will also attempt to estimate costs involved in various digital payments options and oversee implementation of measures to make such transaction between Government and Citizens cheaper than cash transaction.

The Committee led by NITI Aayog will also implement an action plan on advocacy, awareness and handholding efforts among public, micro enterprises and other stakeholders. That apart, it will organize training and capacity building of various states/UTs, Ministries/Departments of the Government of India, representatives of States/UTs, Trade and Industry Bodies as well as other stakeholders.

Members of the Committee of Officers for driving a digital payments economy in India include Secretary, Department of Financial Services, Ministry of Finance; Secretary, Ministry of Electronics and Information Technology; Secretary, Department of Industrial Policy and

[5] https://niti.gov.in/content/digital-payments

Promotion; Secretary, Department of Investment and public Asset Management; MD & CEO, National Payments Corporation of India, Secretary, Ministry of Rural Development, Chairman, National Highways Authority of India, Adviser, NITI Aayog.

2.1 Review of Literature

Literature reviews are the scholarly or published articles, papers or reports in which certain knowledge related to topic is available. It also includes information related to objectives, findings and tools of methodology used in the study.

Some sources from which review of literature can be obtained:-

- Published Journals
- Books
- Internet

Purpose for Review of Literature

- ✓ To fill the gaps in the literature.
- ✓ To find out the information and ideas that are relevant to our project.
- ✓ To identify, appraise and select the high quality evidences and arguments related to our project.
- ✓ To increase the depth knowledge in the particular field.
- ✓ To put our work in right direction.

Note –APA Style has been used for reference of review of literature.

1. Kulshreshtha, 2019 reviewed in the study **"Mobile Wallet Adoption in India: An Analysis"** that India is endlessly trying to place itself as one of the largest digital economies. For example demonetization was being undertaken. Demonetization has brought an important change in the outlook of the Indian patrons. This study was done with the aim to discover the issues which are affecting people's intention to adopt mobile wallets and abridge the utmost leading aspects affecting the intention to implement mobile wallets by leading exploratory factor analysis. This research is based on primary data which are collected from 700 samples using convenience sampling technique & are examined through SPSS. The result show that the clients are finding problems in using use mobile wallets as suitability and comfort plays an important role in making mobile wallets fruitful in these cities. Clients will consider mobile wallets beneficial when compatibility and awareness is clarified in lingo language.
2. Dr. S. Yuvaraj, 2018 reviewed in their study **"The Factors Influencing the Buying Behaviour of the Consumers with Digital Payments Modes"** that Recent changes in the economy moving the consumer's world into digitalization. Now digital payments become a trend while in buying. Digitalization has been changing the habit of the consumers. The study was done with the aim to examine the factors influencing the buying behaviour of the consumers with digital payment modes & to examine the factors changes in the buying behaviour pattern of consumers after digitalization. This study is based on primary data and secondary data where primary data was collected thru a structured questionnaire which was analyzed by statistical tools including frequency analysis, descriptive statistics and chi-square test. SPSS 20 was used to perform statistical analysis and secondary data collected from books, journals and websites etc. The result shows that the consumers are buying with confidence is the major factor influencing to use these digital payment modes. Now everyone having smart phones and internet connection in their hands is the major life style changes of the consumers reflected in the buying behaviour pattern. Now digitalization has been changing the habit of the consumers. It is simple and fastest payment method, so people can use this for their convenience. At the same time the personal information's provided by the consumers while in payments are not secure in every place.
3. Aiswarya Sivarajan, 2018 reviewed in their study **"A Study on the consumer Perception Towards Mobile Banking Services of State Bank of India with Special Reference to Kollam District"** that Technology has turned into inevitable part for all industries across the

globe. This is true in the case of banking sector, where the technology plays a vital role in developing the banking system. Presently banks have embraced wireless service, and mobile technology in their actions to deliver their customers with advanced services; from bill payments through mobile phones to receiving marketing updates while they are stuck in a traffic jam. This research aim to find out the clients' preference towards mobile banking products of SBI, about the satisfaction level of clients towards mobile banking services of SBI, ascertain the acceptance level of mobile banking products of SBI, discovery whether there is a significant relation between Gender & mobile banking app. This research is based on primary data through a well-structured questionnaire from 100 respondents. Sampling technique used in this study was Simple Random & secondary data were taken from bank details. It was observed from the filled questionnaire that the opportunity of mobile has been broadly used by the SBI. Being one of the creators in providing mobile banking application services to their clients, SBI has been fruitful in familiarizing many such applications that have made banking a much easier business for their clients, this data helped in knowing the satisfaction level towards numerous applications, and also to find out recognition of these applications by the clients of SBI.

4. Desai*, 2018 described in his study **"A study on Preference of Consumers towards M-Wallets in Surat City"** that M-Wallet provides a suitable result for several business looks to allow clients to purchase their products online with superior ease, so driving sales. The Indian M-wallet market is expected to raise at a compounded growth rate (CAGR) of 141 per cent to reach Rs. 30,000 crores by the end of 2021-22. After demonetization, M-wallet has seen marvelous evolution but still a number of people of India hesitate to do online transaction and pay via M- wallet. The study aims is to know the awareness of M-Wallet in Surat City, the preferred mode of payment for products purchased online by people of Surat City and factors affecting decision of using Mobile Wallet in the City. The study is based on both primary & secondary data. Primary data were collected from 176 respondents through Non-Probability Convenience Sampling technique, and it was examined through chi-square. While secondary data were collected through various books, magazines & website. It was founded in this study that awareness is high in Surat city linked to M-wallet. People who belong to the age group of 18-25 have more knowledge about M-Wallet. Paytm is the most preferred digital application in the city.

5. Das, 2018 described in his study **"A Study of Digital Banking Facilities: With Reference to Guwahati in Kamrup (Metro) District of Assam"** that there is very good progress in the field of information technology has reduced the world to global village, and it has caused unprecedented changes in the banking industry. The aim to study and analyze the issues that are rousing the bankers to enable the clients of Guwahati City District: Kamrup Metro Assam and to study and analyze the satisfaction of clients of the city. This paper is based on both primary, and secondary data. Primary data were collected through deliberations with bureaucrat, and clients of numerous banks to recognize many digital banking services provided by their bankers of the city and secondary data, were collected with the help of internet, the brochures, Advertisements, magazines and the printed material available from the public and private sector banks of the city. It can be concluded that banks should increase security and focus on the quality of banks and should install system supports by software and firewalls.
6. V.Rengarajan & V.Vijayanand, 2018 reviewed in their study **" A Comparative Study on Awareness and Usage of Digital Payments Among Customer of Private and Public Sectors Banks in the Region of Thanjavur and Kumbakonam"** that the key intention of this research is the clients' perception on the digital payments relatively between the private sector, and public sector banks in favor of the usage and awareness of digital payments. The purpose of this study was to know about the awareness and usage level of respondents towards digital payments of both banking sector & about the inducing variables of respondents towards digital payments. This research is completely based in primary data & it is collected from 174 respondents through random sampling technique with the help of a well-structured questionnaire. It was examined through chi-square, ANOVA & correlation. There is a positive correlation between awareness & usage of digital payments between the Privates and Public Sector Banks, but with a small variation between them in the execution of digital schemes. The motive for selecting the Private Sector bank is service quality. The public sector banks should focus more on the promotion as well as the awareness programs that are led to make the public understand and make them use it. The private sector banks are also to join well the clients without charging much. It is concluded that the public sector banks are just fragile in the overview and execution of the digitization the same applies to private sector banks.
7. Dr. R. Gokilavani, 2018 described in their study **"Can India Move Toward s Digital Sovereign Currency? A Study on Perception of Consumers towards Digital Payment"**

that the digital payment system is an electronic medium that allows consumers to make electronic commerce transactions for their purchase. The aim of the study was to recognize whether there is a substantial dissimilarity in socioeconomic status of clients, and their awareness towards digital payment. This study is based on primary data which is collected through random sampling which is collected from 150 respondents and were analyzed with the help of T-test & ANOVA. The outcomes indicate that the portion of clients have reasonable level of insight towards digital payment. Digital payment system should be reinforced to upsurge the safety and security of pecuniary transactions of clients and it must be operator friendly and abridged. In addition, digital payment system should shrink danger which are related to dealings, and it must implement appropriate measures to overwhelm unnecessary disruption in its procedures.

8. Verma, 2018 described in her study **"A Rise of Digital Banking in India- A Case Study of HDFC Bank"** that the E-Banking services are executed only upon the customer, and these e-banking services would fully integrate with the core banking solution that is already in usage. The aim to analyze awareness among customers using net banking service and to know about the net Banking service provided by HDFC Bank, the cause why customers are using or not using net banking service, the confidence of the customers of HDFC Bank in using these services & to study the popularity of the Net banking service among the customers of the bank. This study is based on primary & secondary data which are collected through a well-structured questionnaire with the help of convenient sampling and secondary source used were countless journals, and website of many online journals. It was analysed through ANOVA, Reliability analysis, Factor Analysis and Hypothesis Testing. It can be concluded that Technology issues relating to payments, Cheque clearing and securities settlements made several recommendations to improve the quality of service. The introduction of new instruments such as ATM, retail Electronic Funds Transfer (EFT) and Electronic Clearing Services (ECS) have all helped in developing an effective, efficient and speedy payment and settlement systems.
9. Baghla.A, 2018 identified in his study **"A Study on the Future of Digital Payments in India"** that the current trend towards the adoption of digital payments in India. The term Digital Payment means making payment to other person with the help of internet or through electronic mode instead of paper money. This aim to find out the attitude of people towards adoption of digital payments in India, find out the problems faced by people in making digital transfers,

To find out the most popular method of digital payments & have an idea regarding the expected future of digital payments in India. This study is based on primary data which was collected through a well-structured questionnaire from 110 respondents which were analyzed through bar charts. It can be concluded that it will take enough time in India to become completely cashless economy. It will require complete support from people and more awareness and knowledge among people. The problem of lack of education, and digital literacy needs to be solved first to have more number of digital transactions. Further, cashbacks offers are working well at present, but it will require a committed, secure and highly reliable payments network to boost digital transactions in India, to have transparency in the transactions, eradication of black money and to have long run economic development by cashless economy. By doing this, we can surely have a great future of digital payments in India.

10. Ms.G.Pavithra, 2018 Evaluated in their study **"Digital Payment System: Awareness and Usage in Coimbatore City"** that Digital payments are the trend of the day. In a mixed economy like ours, this is a great boon for all the users around the world. Digital payment system is completely changing the traditional system of making and receiving payment throughout the world. The aim of the paper was to analyze the awareness level of the respondents towards the types of digital payment systems, identify the purpose of digital payment systems, and find the factors influencing the preference of digital payment systems. This paper was completely based on primary data which was collected through 250 respondents with the help of structured questionnaire. The study was analyzed with the help of Percentage analysis, Descriptive analysis. It can be concluded that Digital payment system in India, has shown tremendous growth, but still has lot to be done to increase its usage. 24*7 services, time-saving, convenience and security factors contribute to strengthen the digital payment system. Digital transactions and mobile wallets, with more secured features, reduced cost of managing and ease of transaction in digital payments are the probable developments in digital payments all over the world. There are a fewer problems for the public to use cashless digital methods at present. But the government's efforts in creating awareness, building trust, providing cyber security framework and necessary infrastructure will make it possible for faster acceptance among the public to adapt towards digital payment systems.

11. Shettar, 2018 evaluated in their study **"The Changing Trends in Payment: An Overview"** that the present era is entering into a new pace in payment system by using digital wallets filled

with coupons and offers. The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. Faceless, Paperless, Cashless is one of professed role of Digital India. The aim of this paper was to know the various modes of payments to study the benefits of cashless economy, assess the preparedness for the implementation of the cashless economy by Indian Government, study the online high value payments. This paper was completely based on secondary data which was collected from various sources like research journals, periodicals, government publications, magazines, newspapers articles and the authenticated websites. It can be concluded that Cashless economy will help in curbing black money, counterfeit's fake currency, fighting against terrorism, reduce cash related robbery, help in improving economic growth of our country. Major challenges that can hinder the implementation of the policy are cyber fraud, high illiteracy rate, attitude of people, lack of transparency & efficiency in digital payment system. The study shows that the introduction of cashless economy in India can be seen as a step in right direction. It helps in growth and development of economy in India.

12. T.Abirami, 2017 described in her study **"Response towards Cashless Economy: A Study in Kumbakonam Retail Market"** that a Cashless economy is a situation in which all the financial transactions are made by digital means rather than physical currencies. In India, most of the transactions are made through cash. So, our Indian Prime Minister Narendra Modi had taken a Digital India Initiative. The aim of this paper was to assess the response towards cashless transaction system and how far they are adopted to this economy, to know the importance of the cashless transaction system, to identify the risk associated with the system & to know the factors that are promoting cashless transaction system. This paper is based on primary & secondary data. Where primary data were collected from 250 respondents from Kumbakonam Retail Market & secondary data were collected with the help of online sources and journals, ProQuest, Scopus websites. It was analyzed using percentage analysis, Chi square and Correlation with the help of SPSS v16.0 package. It can be concluded that many people have already been aware of cashless economy and that a proportion of the people are actually awaiting the introduction of the cashless economy. The result revealed that the cashless economy has a positive impact on prevention of money laundering and stimulation of economic growth.

13. Sriram Devulapalli, 2017 described in their study **"Challenges and Opportunities of e-Banking in India"** that after the effect of demonetization, digital cash has been the hotcake among the citizens of India. Digital cash and online transactions in the current market scenario have a great effect on e-banking and digital banking. E-banking comprises mainly of electronic funds transfer, and usage of online banking services. The paper aim to find out to study the prospect to upsurge e-banking alertness, to analyze the challenges and issues involved in e-banking & to clarify the methods approved for safe banking. This paper is based on both primary data and secondary data where primary data were collected through a well-structured questionnaire, and secondary data were collected with the help of countless research articles and certified journal publications. It can be concluded that if the safety measures are adopted by all the banks, e-banking will be a phenomenal implementation by the citizens of India. It might even transform into a revolutionary service by the banking companies.
14. Shailendra Singh Rana, 2017 in his study reviewed **"A Study of Preference towards the Mobile Wallets among the University Students in Lucknow City"** that previously most of the people in India didn't know about mobile wallets. Folks started using it after smarts phones had come. This research was done with the aim to review the preference towards the usage of mobile wallets among the university students in Lucknow city, discover out the influence of numerous demographic variables on the judgment concerning the upcoming mobile wallets, examine the issues affecting the embracing of mobile wallets & examine the reasons abstaining the usage of mobile wallets. This paper is based on primary data which are collected via structured questionnaire from 95 students from various universities of Lucknow with the help or purposive sampling technique. It was studied through SPSS software by using statistical tools like descriptive statistics, pie chart, χ 2 test etc. It was found that the majority of people prefer mobile wallets for recharge, paying bills. Queue avoidance, time and place independent purchase and instant payments are the three important factors for the students to opt for mobile wallets.
15. Chandrawati Nirala, 2017 described in their study **"Role of E-Banking services towards Digital India"** that the government of India boost folks to change towards Digital Economy which can be attained by the usage of cards, electronic payment gateway systems such as National electronic funds transfer (NEFT) and Real time gross settlement (RTGS) etc. in India**.** The paper aim to find out the Drivers of Digital Banking Transformation, recognize

contribution of Indian banks towards Digital India, identify amenities provided by Indian banks to make India cashless (Key trends in Digital payment), identify Crucial blockades of Digital payment, identify Threat for Indian bank. This study is based on secondary data poised from various papers, periodicals, establishes, research articles, bulletins, websites and available data from numerous issues of Reserve Bank of India and several Public/Private sector banks. It can be concluded that the speedy development in information & communication technology has significantly influenced our banking industry. Banks and financial organizations have improved their services as a financial intermediary by adopting various IT solutions. Increasingly banks are integrating social media components into their online channels, and we are beginning to see use-cases like transferring money to one's Facebook friends or login to the bank using Facebook ID. Video banking offers banks the ability to expand the reach and convenience of customer engagement in a comparatively low-cost fashion. The most common uses of video in recent times are interactive teller, ATM with teller assists or in-branch video conferencing.

16. C Anithamary, 2017 identified in their study **"A study on consumer awareness and usage of E-Banking services with reference to Coimbatore City"** that the web banking is the period that describes all transitions takes place among companies, organizations and individual and their banking institutions. This focus to find out the awareness of consumers towards e-banking and how often it is used by them. The study is based on primary data through a well framed questionnaire. The samples taken in this study is 100 through convenience sampling technique. It was examined through Percentage analysis, Chi-square, ANOVA, and the outcome revealed that the majority of the amenities provided by e-banking/ Internet banking is executed by both the banks whether public and private sectors are above the beliefs of the customer's. It has been witnessed that even the clients who know about web banking network are not using this facility due to misunderstanding, and inadequate knowledge. These clients should be earmarked by the bank & should influence them for the same. The effect of the study shows that clients are using some facilities of countless E-banking services.

17. Miss Ameena Farooqui, 2017 described in his study **"E-Banking Issues & Challenges"** that the financial system plays an important role in the economic development of the country. Implementation of internet in banking system has modernized the banks. E-Banking is knowledge based and mostly scientific in using the electronic devices of the computer

resolution through the extensive use of IT without direct resources to the bank by the customers. The aim of this paper was to identify various e-banking services functions adopted by commercial banks, to study and analyze the progress made by Indian banking industry in adoption of technology, to study the challenges faced in E-banking, to study the opportunities available in E-banking & to find advantages of E-Banking to Customers and Banks. The study is based on secondary data which was collected from journals, internet, newspaper etc. Finally, it was concluded that with the passage of time E-banking has gained the momentum in the Indian context. Most of the banks have implemented E-banking facilities which are beneficial to both i.e., banks, and the customers. Though there are many challenges and hurdles in the smooth implementation of E-banking system in India but at the same time E-banking is having a bright future. The use of ATMs, Debit and Credit has become a good source of usage of information technology and has paved a way for Digitalization.

18. Shamsheer Singh, 2017 described in their study **"Study of Consumer Perception of Digital Payment Mode"** that last decade has seen tremendous growth in use of internet and mobile phone in India. Increasing use of internet, mobile penetration and government initiative, such as Digital India are acting as catalyst which leads to exponential growth in use of digital payment. This paper aim to find out the customer perception, and impact of demographic factors in adoption of digital mode of payment. This study is based on primary data which was collected from 150 plaintiffs from the different fragments of Delhi. It was analyzed through ANOVA, frequency analysis & Cronbach's Alpha test. It was concluded that demographic factor except education does not have much impact on the adoption of the digital payment & the growth of users of Smartphone and internet penetration in this area also facilitated the adoption of digital Payments.

19. K., 2017 described in her study **"Digital India Programme and Impact of Digitalization in Improving Quality of Life of Citizens"** that the digital India is the outcome of many innovations and technological advancements. These transform the lives of people in many ways and will empower the society in a better manner. The 'Digital India' programme, an initiative of honorable Prime Minister Mr. Narendra Modi, will emerge new progressions in every sector and generates innovative endeavors for GeNext. The aim of the study was to understand Digital India – as a campaign where technologies and connectivity will come together to make an impact on all aspects of governance and improve the quality of life of

citizen. This paper was completely based on secondary data which was collected from different journals, research paper, government reports, newspaper etc.. it can be concluded that A digitally connected India can help in improving social and economic condition of people through development of non-agricultural economic activities apart from providing access to education, health and financial services. However, it is important to note that ICT alone cannot directly lead to overall development of the nation. The overall growth and development can be realized through supporting and enhancing elements such as literacy, basic infrastructure, overall business environment, regulatory environment, etc.

20. Gupta S. , 2017 described in her study **"Attitude of Women towards Cashless Economy: A Study of Ludhiana City"** that the demonetization was initially supported by public with an expectation that it will free the economy from corruption, and black money which in turn will act as gap filler between haves and have not's. But later reports indicated that huge pain and problems that common men had to go through each day was not worth it. The aim to identify the demographic profile of the respondents who make cashless transactions, to identify the different modes of payment used by urban women before and after demonetization, to identify the reasons for the use of cashless transactions by urban women of Ludhiana, to assess perception of the women towards digital payments & to identify the frequency of technological challenges faced by urban population while using the cashless transactions. This paper is completely based on both primary & secondary data where primary data were collected from 100 women through convenience & snowball sampling. It was analyzed with the help of the simple percentage procedure, mean, median, mode and standard deviations with the help of SPSS v 20.0 package. It can be concluded that the majority of respondents in study agreed that demonetization has led to increase in digital payments but they are not motivated by the publicity, or incentives offered by government but compelled to do so due to adversities faced by them during period of demonetization. They face certain technological problems like system error and ambiguity of information available on banking and other payment sites.

21. Vimala, 2016, described in their study **"An Evaluative Study on Internet Banking Security among Selected Indian Bank Customers"** that the current scenario, usage of Internet has revolutionized the entire banking system. People can bank anytime, anywhere without having the need to visit the bank branch. This helps customers in saving time by completing work at the click of the button. Although, Internet banking is very convenient and fast, it is stalled with

some security issues. Banking institutions have taken several measures to ensure safety measures for their customers while performing various transactions online. The aim of the paper was to analyze the customers' perceptions and awareness towards Internet banking security; understand the problems faced by customers while using internet banking services; and known impact of the internet banking securities among the selected customers in Coimbatore. The study was based on both primary and secondary data where primary data were collected from 50 customers of Indian banks through a well-structured questionnaire, and secondary data were collected from RBI monthly bulletins, Magazines, newspapers, business dailies, books, and journals, e-media and other literatures available in this field. The study was analyzed through mean, median, standard deviation with co-efficient of variation, correlation and regression, factor analysis etc. SPSS software package, and the IBM – AMOS 20.0 version software were used for the analysis. It can be concluded that Internet banking helped to identify the precautionary checklist open to for a number of issues on the internet banking era. Furthermore, a supreme and powerful security policy employed by the banks and legislation instituted by local, or state Governments should be in use and obligatory to improve security in Internet banking systems. In addition, the banks should provide enhanced, new and improved hi-tech security measures such as Internet scam protection, hacking detector and anti-virus protections, etc. These upgrades can provide better discretion to both existing and prospective Internet banking customers.

22. Hada, 2016 reviewed in his study **"Online Banking and Customer Satisfaction in Selected Public and Private Sector Banks in Jaipur City: A Comparative Study"** that cyber banking is nearly using the structure for digital age to generate chances, both indigenous & worldwide. IT empowers the dramatic lowering of operation cost and the formation of new types of banking chances that address the hurdles of period and distance. The aim of this paper was to know the numerous internet banking amenities accessible by the designated public and private banks at its customers, the client satisfaction over online banking. & the aids that are delivered to the specific clients under internet banking. The research is based on primary data which are collected through a framed questionnaire from 200 clients from convenience & judgment sampling. It was scrutinized by making the use of Z test. The outcome of the research reveal that the customers of public sector, and private sector banks are satisfied with E-banking services though not completely satisfied.

23. Mukhtar, 2015 investigated in his study **"Perceptions of UK Based Customers toward Internet Banking in the United Kingdom"** that the internet banking is becoming increasingly popular due to convenience and flexibility it offers. Banks are forced to promote online banking services to enhance its operations with reduced cost of operations. The study aim was to know the progression of internet banking, scrutinize attitudes and behavior of people towards internet banking in the United Kingdom, to inspect encounters confronted by clients to adopt internet banking in the United Kingdom, to analyze challenges played by corporations in the effective development of internet banking in the United Kingdom. The study is based on primary, and secondary data. Primary data can be collected through several tools such as surveys, interviews, observations, and focused groups & it is collected from 100 respondents through convenience sampling. It was analyzed with the help of SPSS. It can be concluded that internet banking was emerged in the late 1980s but the rules and regulations of the internet banking are still developing and evolving. Respondent found an internet banking convenient. Some people had faced problem while using internet banking because they don't have enough knowledge about the same.

24. Radhakrishna, 2013 described in his study "**Drivers and Inhibitors of Internet Banking Adoption in India"** that e-banking services, as this would revolutionize their profits. Since internet banking in India is still in its nascent stage, it is essential for e-banking institutions to enhance reception and usage of internet as a banking channel by their customers. This paper has reviewed the most of seminal studies in the area of diffusion of innovation and makes an attempt to do an experimental research that looked into the factors that drive and inhibits internet banking usage in India. An investigative factor analysis followed by a positive factor analysis has been applied on 362 internet banking users. Findings resulted in seven factors – perceived benefit, hacking and fraud risk, performance risk, computer self-efficacy, technology intricacy, social influence, and pricing concerns. The results suggest that acceptance and usage of internet banking services can turn into a fundamental concern for future research, as the drivers overcoming the inhibitors over time at an influencing rate. Moreover, this study also compares the findings with extant diffusion of innovation literature and identified several additional factors that can affect internet banking adoption in India.

25. Chaudary, 2013 identified in his study "**Impact of E-Banking System on the Customer Satisfaction – A Study among the Selected Customers in Chennai City**" that the current

domain is increasing online access day by day. One part is emergent swiftly that is web banking. United with virtual retailers there be a lot of money which is being transferred, engaged only by communication over the web. This is very appropriate and the ready access to the Internet in all rest-world countries, coupled with the cost savings from closing bank branches, is driving the deployment and adoption of these services. Purely online transactions, however, lead to increase risk. This study aim to find the effect of E-banking services on customer satisfaction among the selected banks, the methods of promoting and developing the online transactions among clients, the level of awareness on and benefits of E-banking services. This research is based on primary, and secondary data. Primary data is collected through a well-regulated questionnaire from 250 respondents. Sampling technique used in this study is Simple Random. The primary data was studied by correlation. It was founded there is positive correlation on paths between Internet Banking and customer satisfaction on Loyalty. This is shown by significantly level in website quality and e-trust variable, less than the condition of significant level. Thus concluded that Internet Banking and Customer Satisfaction has directed significant effect on customer Loyalty.

26. Alireza Chavosh, 2011 described in their study **"Comparing the Satisfaction with the Banks E-payment Services between Degree Holder and Non-Degree Holder Customers in Penang-Malaysia"** that the Malaysian bank managers believe that the e-payment is of high potentiality to succeed as a new tool of payment which can increase the rapidity and accuracy of transactions and consequently increase customers' satisfaction**.** This paper aim to examine bank client's satisfaction level with e-payment amenities in Malaysia as numerous financial dealings are held by electronic payment systems in this country. This paper is based on primary data which was collected 350 respondents through a well-structured questionnaire & was analyzed with the help of SPSS. It can be concluded that Degree Holder Customers showed that they prefer e-payment services to traditional ones in all aspects and their only concern is to some extent about the security issues in using such e-services. Non-Degree Holder Customers in using e-payment services is feeling inconvenience in working with such service.

27. Williamson, 2006 reviewed in their study **"Understanding Consumer Adoption of Internet Banking: An Interpretive Study in the Australian Banking Context"** that paper reports main findings from an interpretive study of Australian banking consumer experiences with the adoption of internet banking. The paper provides an understanding of how and why specific

factors affect the consumer decision whether or not to bank on the internet, in the Australian context. A theoretical framework is provided that conceptualizes and links consumer-oriented issues influencing adoption of internet banking. The paper also provides a set of recommendations for Australian banks. Specifically, the findings suggest that convenience is the main motivator for consumers to bank on the internet, while there is a range of other influential factors that may be modulated by banks. The findings also highlight increasing risk acceptance by consumers regarding internet based services and the growing importance of offering deep levels of consumer support for such services. Gender differences are also highlighted. Finally, the paper suggests that banks will be better able to manage consumer experiences with moving to internet banking if they understand that such experiences involve a process of adjustment and learning over time, and not merely the adoption of a new technology.

2.3 RESEARCH GAP

Literature review conducted by scrutinizing numerous works available in the arena of digital banking in India as well as foreign countries have made it obvious that inspite of many studies that have been taken up in this area in the recent past, still there is a lack of research in few areas of digital banking. The banking sector open the door for many players with the globalization & technology revolution in 21st century. The increasing use of digital modes for payment in India is bringing in many changes in retail sector. The payment mode selection decision by consumer after demonetization has brought revolutionary changes in economic scenario. In most studies number of respondents are very less and majority of respondents are male rather than women. Many studies focus on particular Bank Application & Fintech Companies where number of factors involved been less. Some papers are on Secondary data that are from Government Reports or Research Papers which give blur sight about satisfaction & perception about customers. Major studies are completely based on demographic profile. There are very less studies on working and non-working women's behavior especially on the women's of Rajasthan. There are very less studies in Digital Banking field like funds transfer, payment of utility bills, e-wallets etc.. There are very less studies on women buying behaviour towards FMCG products. Thus, the above points of identified research gap forms the obligatory and base for the present study that is carried out. This study of digital payment is on particular state, and its people therefore it provides deeper inputs.

Need of the study

This study mainly focuses on the buying behavior of women towards FMCG products through digitalization. There are various pillars of Digitalization out of which for the study we will focus on digital India. Digital India is the beginning of digital revolution. It is a dream which is created by the Government of India to ensure that government services are made available to citizens electronically, even in remote areas, by improving online infrastructure and by increasing Internet connectivity. This campaigning was aimed to promote digital banking, but real effect on digital banking was realized after demonetization action. Demonetization made it compulsory to use digital banking as an alternate system to cash and after demonetization digital payment had continuously increased. Digital banking was introduced in India in the 1990s but it actually gained attention only after "The Demonetization" in 2016. It is an important arena for the Indian economy, but unfortunately not many researches have been done in this area. Digital payment system can actually help our country to get rid of black money. This study only focus on FMCG products as these products are mostly brought by women only.

There are the least studies on digital payment system which especially which focus on women buying behaviour towards FMCG products. With the passing time women are increasing day by day. Females constitute about 48.14% half of the total population in Rajasthan and play a very significant role in the state economy. According to the 2011 census estimates is 29.9 million, out of which 18.3 million are males and only 11.6 million are females. 52.12% of women in Rajasthan is literate. Moreover, there are very less studies which compare the usage of working and non-working women. According to a census 2011 almost 35.1% women are working in Rajasthan. This study will help us to know which women use digital payment system more in comparison to working and Non-working women. Working women have greater opportunity to learn and update themselves on digital transactions. Non- working also women adapt out of necessity. There are certain problems which are faced by women while using digital payment system which are affecting the adoption of digital payment system, so there is a need to highlight those problems & suggest some practical solutions.

2.5 Objectives:

- To find out the awareness about digital payment system among women.
- To know the socio-economic characteristics of women adopting digital payment system for buying FMCG products.
- To find out the factors influencing the buying behaviour of women towards FMCG products using digital payment system.
- To find out the challenges faced by women in using digital payment system for buying FMCG products.
- To compare the usage of digital payment system by working and non-working women for buying FMCG products
- To find out the impact of digital payment system on buying behaviour of women.

2.6 Hypothesis

H0: There is no significant difference on Impact of Digitalization on Buying Behaviour of Women

Ha: There is significant difference on Impact of Digitalization on Buying Behaviour of Women

2.7 Significance of the Study

There have been numerous of researches done on several grounds & regions of digital payments as mentioned. However, there are very less number of studies on women buying behaviour towards FMCG products through digital payment therefore, useful approach in this field will be to understand the opinion of women towards digital payment.

This research will be helpful in the following segments:

- **To the general public (women):**

  The foremost purpose of this research is to know about the buying behaviour of women towards FMCG product through digital payment in Rajasthan. This research will be beneficial not only to the women who are working but also to the non-working women's of Rajasthan. Women's will know about the benefits of digital payment in today's world. This study will also help the women's to know about the aids they will get after using digital payment system.

- **To the government of India:**

  People have expressed the challenges faced by them while using digital payment system. Government bodies can help in resolving the problems faced by them while using digital payment system. This will raise the usage of digital payments in India which will lead to cashless economy. These snags related to digital payments will get solved more people will start using digital payment system which will reduce black money in our country.

- **To the researcher:**

  The research proved as very beneficial for the researcher as it helped her to gain insight into digital payments in India. The study enabled the researcher to learn the elementary complexities of carrying out research successfully.

- **To the FMCG Company**

  This study will also be helpful to the FMCG Company. They will come to know about women behaviour towards the products, and this will also help the company to know about what exactly women wants.

- **To the academicians and future researchers:**

  This study will also be helpful for academicians, researchers, and students whose area of interest is digital payments or digital banking industry of India for undertaking future research.

  Researcher being done in Digital Payments are increasing day by day. Digital Payment System is improving its services with the time. The study will help in identifying the significant factors affecting the behavior and attitude of women in digital payment system.

2.8 Variables

Variable is anything that has quality & quantity that varies. It varies a measurable attribute that changes or varies. They are broadly divided into:

1. Dependent variable: the variable that depends on other factors are measured. These variables are expected to change as a result of an experimental manipulation of the independent variable or variables. Dependent variable are the presumed effect.
2. Independent variable: the variable that is stable and affected by the other variable in the study. Independent variable is the presumed effect.

In the present study the following variable were the part of the study:

- Independent Variable: Age, Marital Status, Qualification, Income, Occupation, Family Structure, Family Size
- Dependent Variable: Discounts, Availability, Cost of Delivery, Complain solving Procedure, Time-Saving, Safety & Security, convenience, privacy, knowledge, ease to use. Available source to educate on use, Language-Medium Offered, Discounts, Cash backs, prompt response, freedom to take decisions on money matters.

3.1 Methodology

3.1.1 Research Design

A research design is a procedural plan that is adopted by the researcher to answer question validity, objective, accurately & economically.

Descriptive design will be used for this study.

3.1.2 Scope

- **Conceptual/Content Scope:**

  This study will focus on impact of digitalization through digital payments on buying behaviour of women towards FMCG products.

- **Geographical Scope:**

  This study covers adoption of digital banking by women in Rajasthan especially in Jaipur, Jodhpur, Alwar and Nagaur. These cities are the major cities of Rajasthan.

3.1.3 Universe

The population of the study consists of women's of Rajasthan. As this study is related to usage of digital payment in which we have covered four cities of Rajasthan i.e. Jaipur, Jodhpur, Alwar & Nagaur.

Sr. No	District	Population	Increase	Gender Ratio (per 1000 males)	Literacy
1	Jaipur	6,626,178	26.19 %	910	75.51 %
2	Jodhpur	3,687,165	27.74 %	916	65.94 %
3	Alwar	3,674,179	22.78 %	895	70.72 %
4	Nagaur	3,307,743	19.20 %	950	62.80 %
5	Udaipur	3,068,420	23.69 %	958	61.82 %
6	Sikar	2,677,333	17.03 %	947	71.91 %
7	Barmer	2,603,751	32.52 %	902	56.53 %
8	Ajmer	2,583,052	18.40 %	951	69.33 %
9	Bharatpur	2,548,462	21.29 %	880	70.11 %
10	Bhilwara	2,408,523	19.60 %	973	61.37 %
11	Bikaner	2,363,937	41.19 %	905	65.13 %
12	Jhunjhunun	2,137,045	11.67 %	950	74.13 %
13	Churu	2,039,547	6.01 %	940	66.75 %
14	Pali	2,037,573	11.94 %	987	62.39 %
15	Ganganagar	1,969,168	10.04 %	887	69.64 %
16	Kota	1,951,014	24.39 %	911	76.56 %
17	Jalor	1,828,730	26.21 %	952	54.86 %
18	Banswara	1,797,485	26.53 %	980	56.33 %
19	Hanumangarh	1,774,692	16.91 %	906	67.13 %
20	Dausa	1,634,409	24.09 %	905	68.16 %
21	Chittaurgarh	1,544,338	16.08 %	972	61.71 %
22	Karauli	1,458,248	20.55 %	861	66.22 %
23	Tonk	1,421,326	17.30 %	952	61.58 %

24	Jhalawar	1,411,129	19.55 %	946	61.50 %
25	Dungarpur	1,388,552	25.36 %	994	59.46 %
26	Sawai Madhopur	1,335,551	19.56 %	897	65.39 %
27	Baran	1,222,755	19.68 %	929	66.66 %
28	Dhaulpur	1,206,516	22.71 %	846	69.08 %
29	Rajsamand	1,156,597	17.18 %	990	63.14 %
30	Bundi	1,110,906	15.40 %	925	61.52 %
31	Sirohi	1,036,346	21.76 %	940	55.25 %
32	Pratapgarh	867,848	22.78 %	983	55.97 %

The state of Rajasthan was made in 1949 when the British gave its name as Rajputana and it was converted into the Dominion of India. In Rajasthan there are 32 cities out of which four cities are selected for the study. For the study we have taken the largest cities of Rajasthan i.e. Jaipur, Jodhpur, Alwar & Nagaur

The total population of Rajasthan is 68,548,437 approx. in which females are 32,997,440 and males are 35,550,997. Population growth is 21.31%. Gender ratio of Rajasthan is 910 women for every 1000 males. The literacy rate in Rajasthan is 66.11% that is 38,275,282 in which female literacy is 52.12% that is 14,586,870 and male literacy is 79.19% that is 23,688,412.

3.1.4 Sample size:

The sampling method used in this study is the probability sampling method which is random sampling. A probability sampling define as one in which every unit in the population has a chance (0 < 1) of being selected in the sample which can be accurately determined. This study will focus in Rajasthan. The population of Rajasthan is 68,548,437 approx. in which females are 32,997,440 and males are 35,550,997. As this study is completely based on women's therefore, the population of this study is assumed as 32,997,440 approx.

The sample size representative of the women in this study are 32,997,440. It is determined based on the Krejcie and Morgan's sample size calculation which same as using the Krejcie and Morgan's sample size determination table. The sample size determination is derivative from the sample size

calculation which expressed as below equation (Krejcie and Morgan, 1970). The Krejcie and Morgan's sample size calculation was based on p = 0.05 where the probability of committing type I error is less than 5 % or p <0.05. So, the sample size according to the table is 384.

$$s = X2\ NP\ (1-P) \pm d2\ (N—]) + X2\ P\ (1—P)$$

Where,

s = required sample size.

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (0.05 = 3.841).

N = the population size.

P = the population proportion (assumed to be 0.50 since this would provide the maximum sample size.

d = the degree of accuracy expressed as proportion (0.05).

Table 2: Krejcie and Morgan's sample size determination table

Population Size	**Confidence = 95%**			
	Margin of Error			
	5.0%	**3.5%**	**2.5%**	**1.0%**
10	10	10	10	10
20	19	20	20	20
30	28	29	29	30
50	44	47	48	50
75	63	69	72	74
100	80	89	94	99
150	108	126	137	148
200	132	160	177	196
250	152	190	215	244
300	169	217	251	291
400	196	265	318	384
500	217	306	377	475
600	234	340	432	565
700	248	370	481	653
800	260	396	526	739

1000	278	440	606	906
1200	291	474	674	1067
1500	306	515	759	1297
2000	322	563	869	1655
2500	333	597	952	1984
3500	346	641	1068	2565
5000	357	678	1176	3288
7500	365	710	1275	4211
10000	370	727	1332	4899
25000	378	760	1448	6939
50000	381	772	1491	8056
75000	382	776	1506	8514
100000	383	778	1513	8762
250000	384	782	1527	9248
500000	384	783	1532	9423
1000000	384	783	1534	9512
2500000	384	784	1536	9567
10000000	**384**	784	1536	9594
100000000	384	784	1537	9603
300000000	384	784	1537	9603

3.1.5 Data Collection

The research will be based on Primary & Secondary data.

- ✓ **Primary Data:** Primary data will be collected thru a well-structured Questionnaire
- ✓ **Secondary Data:** Secondary data will be collected from reports, journal, various books, Magazine, research papers available on the subject

3.1.6 Analysis of Data

- ✓ Data so collected will be tabulated suitably for the purpose of the analysis.
- ✓ Likert Scaling technique will be used.

- ✓ Appropriate Statistical tools like arithmetic mean, Standard deviation, coefficient of variation, correlation analysis, cross tabulation & diagrammatic presentation will be used for interpretation of data.
- ✓ Appropriate inferential statistical tools like Chi-square test, ANOVA etc. will be applied for hypothesis testing.

3.1.7 **Limitation of the Study**

The study may have some limitations.

Chapterization

The proposal study will be divided into followings chapters

Chapter 1 : Introduction

1.1 Digitalization

1.1.1 Impact of Digitalisation on the Banking Sector

1.1.2 Role of digitization in banking

1.1.3 Advantages of digitization in banking

1.1.4 Disadvantages of digitization in banking

1.2 Digital India

1.2.1 The Nine Pillars of Digital India

Chapter 2 **:** Literature Review

2.1 Introduction to Research Methodology & Research Design

2.2 Review of Literature

2.3 Research Gap

2.4 Need of the Study

2.5 Objectives of the Study

2.6 Hypothesis

2.7 Significance of the Study

2.8 Variable

Chapter 4 : Conclusion

Finding

Suggestion

Scope of Further Study

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Appendix

Questionnaire

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